IEEE Bangalore Section – October Report
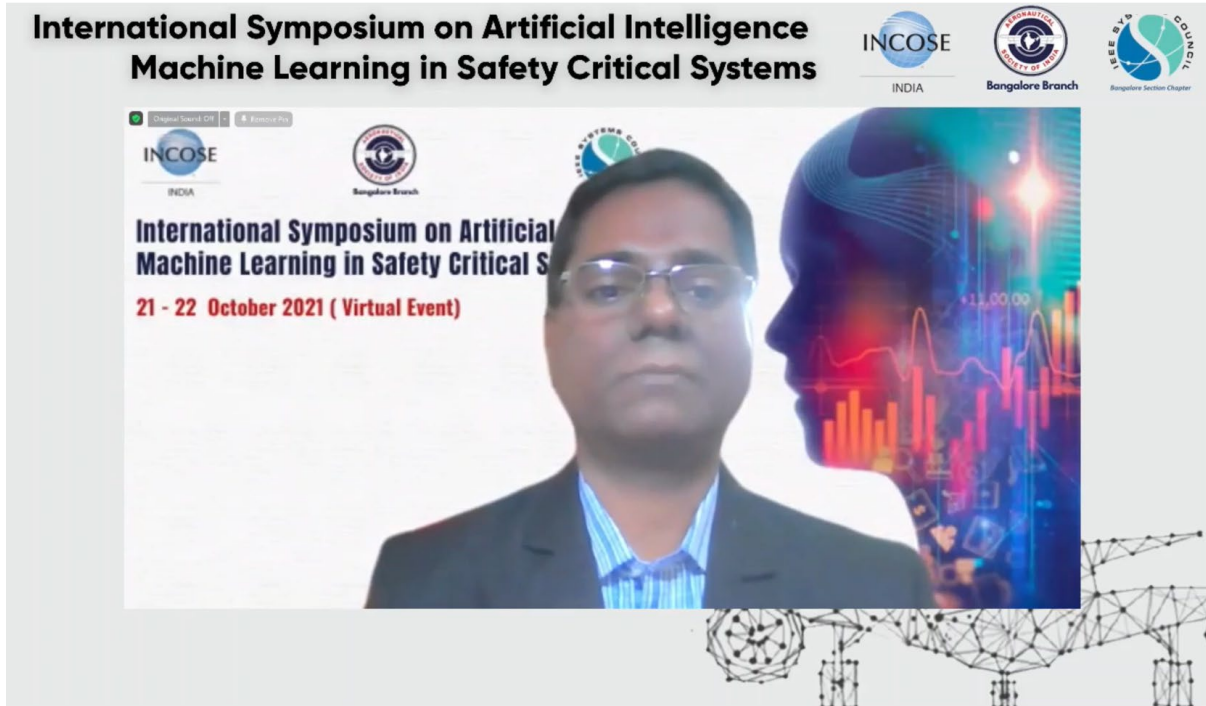
International Symposium on Artificial Intelligence – Machine Learning in Safety Critical Systems

IEEE Bangalore Section Systems Council Chapter organized "International Symposium on Artificial Intelligence - Machine Learning in Safety Critical Systems" virtually on 21-22 October 2021. The event was organized in collaboration with INCOSE India Chapter and Aeronautical Society of India Bangalore Branch. Over 600 delegates attended the virtual symposium.

There is an increasing demand for safety critical engineered systems to inculcate human like- intelligence and autonomy through adoption of AI models, including data-driven decision-making capabilities based on machine-learning. This symposium brought together experts to share their research findings and experiences on various challenges pertaining to adoption of AI-ML in safety critical systems, including implications on regulations and certification

IEEE Systems Council President Dr. Vincenzo Piuri was a Patron for the event, and delivered the inaugural key note address in the symposium, on "Ambient Intelligence for Safety Critical Systems"

The first day of the symposium featured on Modeling and Design aspects on AI-ML for safety critical systems. The second day focused on systems engineering lifecycle aspects including certification & regulations.

IEEE Systems Council Bangalore Chapter Chair Dr. Ramakrishnan Raman delivering the Welcome Address

IEEE Systems Council President Dr. Vincenzo Piuri, delivering the inaugural keynote address on "Ambient Intelligence for Safety Critical Systems"

INCOSE President Ms Kerry Lunney, delivering Keynote Address on "The Spectrum of AI & ML Awesomeness"

Day1-Panel Discussion

Day-2 Keynote address by Mr. George Romanski, FAA

Day-2 Track Keynote Address by Dr. Barclay Brown, Raytheon Technologies

PATRONS

Shri. A S Kiran Kumar President, AeSI, Former Chairman, ISRO	**Dr. Satheesh Reddy** Secretary, Defence R&D, Chairman, DRDO	**Ms. Kerry Lunney** Country Engg Director, Thales Australia & President, INCOSE	**Dr. Vincenzo Piuri** Professor, University of Milan, President, IEEE Systems Council

SPEAKERS & PANELISTS
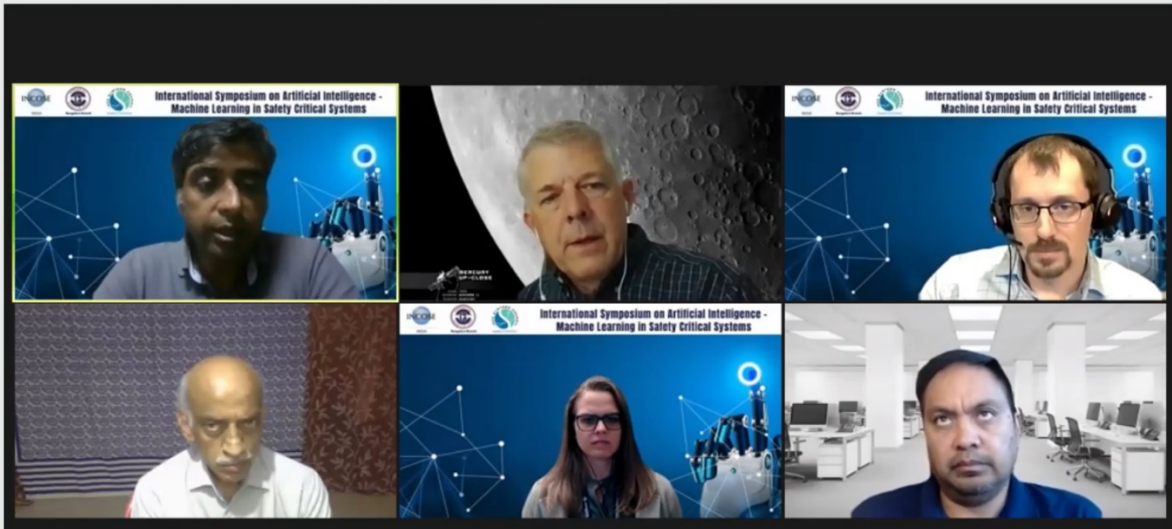
Shri. A S Kiran Kumar President, AeSI, Former Chairman, ISRO	**Dr. Satheesh Reddy** Secretary, Defence R&D, Chairman, DRDO	**Ms. Kerry Lunney** Country Engg Director, Thales Australia & President, INCOSE	**Dr. Vincenzo Piuri** Professor, University of Milan, President, IEEE Systems Council	**Dr. Tessy Thomas** DS & Director General (Aero), DRDO
Mr. George Romanski Chief Scientist Technical Advisor, FAA	**Dr. Barclay Brown** Engineering Fellow Raytheon Technologies	**Dr. Ravindra D. Gudi** AI & ML Chair Professor, IIT Bombay	**Mr. Savyasachi Srinivas** Executive Director, Engineering Collins Aerospace, India	**Mr. Ritesh Ghimire** Aerospace Engineer FAA
Dr. Ramesh Bharadwaj Senior Researcher Naval Research Lab, USA	**Dr. Seema Chopra** Global Technical Leader / Principal Data Scientist – Boeing	**Mr. Raj Pai** Senior Technologist Aeronautics Division, NASA	**Mr. Satish Thokala** Aero & Def Industry Manager MathWorks	**Dr. Darren Cofer** Fellow Collins Aerospace
Dr. Tom Melham Professor, Univ of Oxford Fellow, Balliol College	**Dr. Barclay Brown** Engineering Fellow Raytheon Technologies	**Dr. Ravindra D. Gudi** AI & ML Chair Professor, IIT Bombay	**Dr. Huafeng Yu** Senior Researcher Boeing	**Dr. Ali Raz** Assistant Professor, George Mason University
Mr. Adishesha Sivaramasastry Director – Technology Collins Aerospace	**Mr. Paul La Pietra** Senior Engineering Director PAAC, Honeywell	**Dr. Ravindra D. Gudi** AI & ML Chair Professor, IIT Bombay	**Dr. Stacy MacAllister** Adv. Tech Leadership Program Staff Lockheed Martin Aeronautics	**Mr. Robert Voros** System Safety Lead Merlin Labs
Mr. Prashant Rao Head of Application Engg, MathWorks	**Mr. Tom Ferrell** Lead Assurance Group Joby Aero	**Mr. Roy Nicolas** Director of Software General Atomics		